M/027/032

Red Dome Inc.
5865 West 200 South
Fillmore, Utah 84631
Telephone: (435) 743-8111
Fax: (435) 743-8111 or (435) 759-9184

February 16, 2004

To: United States Department of the Interior
Bureau of Land Management
Fillmore Field Office
35 East 500 North
Fillmore, Utah 84631

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291
Fax: (801) 359-3940

Re: Amended Notice of Intention to Commence Large Mining Operations

Preamble: Red Dome Inc. submits this "Amended Notice of Intention to Commence Large Mining Operations" without waiving any of its legal defenses, rights or claims now existing in regards to the governments demand's for a mining plan. In addition Red Dome Inc. does not waive any of its rights or claims to any of the acreage contained within the Red Dome Placer Mining Claims as described below or elsewhere and reserves the right to go upon any area within the claims to maintain the validity of the claims under the mining laws of the United States of America and the State of Utah, including discovery work, and annual assessment work as necessary.

Red Dome Inc. intends this mining plan to encompass a period of Ten (10) years from the approval of this plan, and will include a maximum of 64 total acres at any given time within the said Ten years. All answers and plans submitted below are deemed to be enhanced and limited by this preamble.

I. Rule R647-4-104 - Operator(s), Surface and mineral Owners

1. **Mine name**: Red Dome
2. **Name of applicant or company**: Red Dome Inc.
3. **Permanent address**: 5865 West 200 South Fillmore Utah 84631

Phone: 435-743-8111 **Fax**: 435-759-9184 or 435-743-8111

4. **Company Representatives**:
Name: Lee T. Miller
Title: General Manager
Address: 5865 west 200 south Fillmore Utah 84631
Phone: 435-743-8111
Fax: 435-743-8111 or 435-759-9184

5. **Location of Operation**:
County: Millard County, State of Utah.
Red Dome UMC 58767
Red Dome Placer Claim #1 UMC 58768
Red Dome Placer Claim #2 UMC 58769
Red Dome Placer Claim #3 UMC 58770
Red Dome Placer Claim #4 UMC 58771
Red Dome Placer Claim #5 UMC 58772
Red Dome Placer Claim #6 UMC 58773
Red Dome Placer Claim #7 UMC 58774
Red Dome New Discovery Placer Claim UMC 59192
are all situated in sections 22, 23, 26, 27 Township 21 S. Range 6 W S.L.M.
Lat. 38* 57' 52" Long. 112* 29' 03" at Northeast corner of Section 26

6. **Ownership of the land surface**
Public Domain (BLM)
Nearest offices located:
Department of Interior
Bureau of Land Management
35 E. 500 N. Fillmore, Utah 84631
435-743-3100

7. **Owner of record of the minerals to be mined**:
Red Dome Inc.
5865 west 200 south Fillmore Utah 84631
Phone: 435-743-8111 **Fax**: 435-759-9184 or 435-743-8111

8. **Adjacent land owners**:
Department of Interior
Bureau of Land Management
35 E. 500 N. Fillmore, Utah 84631
435-743-3100

Gordon Griffin
7 Ramshorn Ct. Skidway Island, Savannah, GA 31411

9. **Have the land, mineral and adjacent land owners been notified in writing?**
Yes.

10. **Does the operator have legal right to enter and conduct mining operations on the land covered by this notice?**

Yes, Red Dome Inc. is the sole owner of the said Mining Claims under federal law and has use of public access roads to all Red Dome Placer Claims.

II. Rule R647-4-105, Maps, Drawings & Photographs

105.1 - Base Map See Exhibit 1 attached hereto.

(a) *Property boundaries of surface ownership of all lands which are to be affected by the mining operations.* **As designated on Exhibit 1**

(b) *Perennial, intermittent, or ephemeral streams, springs and other bodies of water;* **None**
roads; **As designated on Exhibit 1**
buildings; **As designated on Exhibit 1**
landing stripes; **None**
electrical transmission lines; **As designated on Exhibit 1**
water wells; **As designated on Exhibit 1**
oil and gas pipelines; **None**
existing wells or boreholes; **None**
or other existing surface or subsurface facilities; **None**
within 500 feet of the proposed mining operations.

(c) *Proposed route of access to the mining operations from nearest publicly maintained highway (Map scale appropriate to show access)* **As designated on Exhibit 1**

(d) *Known areas which have been previously impacted by mining or exploration activities within the proposed land affected* **As designated on Exhibit 2**

(e) *Areas proposed to be disturbed or reclaimed over the life of the project or other suitable time period* **As designated on Exhibit 2.**

105.2 - Surface Facilities Map

(a) *Proposed surface facilities, including but not limited to;*
* *buildings;* **As designated on Exhibit 1**
* *stationary mining/ processing equipment;* **As designated on Exhibit 1**
* *roads and, utilities power lines;* **As designated on Exhibit 1**
* *proposed drainage control structures;* **None and none will be needed**
* *the location of topsoil storage areas;* **None and none will be needed**
* *overburden/ waste dumps;* **None and none will be needed**
* *tailings or processed waste facilities;* **None and none will be needed**
* *disposal areas for overburden, solid and liquid wastes, and wastewater;* **None and none will be needed**
* *discharge treatment and containment facilities;* **None and none will be needed**

(b) *A border clearly outlining the extent of the surface area proposed to be affected by mining operations, and the number of acres proposed to be affected* **As designated on Exhibit 2.**

(c) *The location of known test boring, pits, or core holes* **None**

105.3 - Additional Maps

Reclamation treatments Map

(a) *Areas of the site to receive various reclamation treatments shaded, cross hatched or color coded to identify which reclamation treatments will be applied. Areas included are: buildings, stationary mining / processing equipment, roads, utilities, proposed drainage improvements reconstruction, and sediment control structured, topsoil storage areas, waste dumps, tailings or processed waste facilities, disposal areas for overburden, solid and liquid wasted, ponds, and wastewater discharge, treatment and containment facilities. Reclamation treatments may include ripping, regrading, replacing soil, fertilizing, mulching, broadcast seeding, drill seeding, and hydroseeding.* **As designated in Exhibit 2.**

(b) *A border clearly outlining the extent of the area to be reclaimed after mining, the number of acres disturbed, and the number of acres proposed for reclamation;* **As designated in Exhibit 2.**

(c) *Areas disturbed by this operation which are included in a request for a variance from the reclamation standards.* **As designated in Exhibit 2.**

(d) *High walls which are proposed to remain steeper than 45 degrees and slopes which are proposed to remain steeper the three horizontal to one vertical.* **None all high walls will be 45 degrees or less. See Exhibit A for location of proposed highwalls.**

III. Rule R647-4-106 - Operational Plan

106.1 - Mineral(s) to be mined:

Foamed Obsidian as a volcanic naturally produced material.

106.2 - Type of operation conducted:

Describe the typical methods and procedures to be used in mining operations, on-site processing and concurrent reclamation. Include equipment descriptions where appropriate.

The Red Dome Inc. mining system is a simple but efficient way of mining; basically we scoop up the raw materials with a large pay-loader place it into the dump truck, haul that it to the crushing and screening plant where it goes though the first screen anything bigger than the desired size is put back though the crusher, anything that falls though the primary screen is then taken to the secondary screen where it is divided up into four different sizes (which depending on color, size and industrial application, we can address the needs of many different products) . Then with the use of haul trucks and/or conveyers these products are stock piled until sold. We have found that at times the use of a D-8 cat handy in loosening up the raw material for the pay-loader to scoop up. Other than equipment above stated and their support vehicles nothing else is used.

A point that needs to be stressed is the fact that Red Dome Inc. does not produce any waste. Everything that is pulled from the raw materials is utilized in the forms of many different products.

Another point is that fact that Red Dome Inc. does not need to use explosives to loosen the ground in order to be able to get at the raw materials. The very natural of the formation of the mountain allows for easy mining.

106.3 - Estimated acreage:

Acreage listed should match areas measured off the maps provided

Areas of actual mining; **50 acres.**
Overburden/ waste dumps; **None and none will be needed.**
Ore and product stockpiles **Five acres**
Access/ haul roads; **Other than public roads located on the claims, 4 acres.**
Associated on-site processing facilities; **5 acres.**
Tailings disposal; **None and none will be needed.**
Other - Please describe; **None and none will be needed.**

Total Acreage; **64 acres.**

106.4 - Nature of material including waste rock / overburden and estimated tonnage:

* *Describe the typical annual amount of the ore;* **25 thousand to 200 thousand tons estimated per annum over the next 10 years.**
* *Waste rock / overburden to be generated, in cubic yards.* **None, there will be no waste, all material including over burden has valuable foamed obsidian properties and value.**
* *Where does the waste material originate?* **N/A.**
* *What is the mature of the overburden / wastes (general chemistry / mineralogy and description of geologic origin)?* **As stated, there will be no waste. Overburden is foamed obsidian and clay dirt blown in off of the desert.**
* *Will it be in the form of fines or coarse material?* **N/A**
* *What are the typical particle size fractions of the waste rock?* **N/A**

Thickness of overburden

The thickness of the overburden in its natural state on Red Dome claims can be anywhere from nothing to a 12 inches thick.

Thickness of mineral deposit

Between 12 inches to 500 feet.

Estimated annual volume of overburden

Unknown

Estimated annual volume of tailings / reject materials

Red Dome does not waste anything, everything is used in a variety of many different products.

Estimated annual volume of ore mined.

Between 25 thousand tons to as many as 200 thousand tons and maybe a bit more.

Overburden / waste description

Red Dome does not produce any waste everything that is mined is screened and processed as possible products to be sold.

106.5 - Existing soil types, location of plant growth material:

Specific information on existing soils to be disturbed by mining will be required. General soils information may not be sufficient.

Red Dome is volcanic in nature and as a volcano it has no soil, the material that is present is foamed obsidian through and though.

Provide specific descriptions of the existing soil resources found in the area. Soil types should be identified along with dept and extent, especially those to be directly impacted by mining.

Alkali, sand, chert

Soil - The plan shall include an Order 3 Soil Survey (or similar) and map. This information is needed to determine which soils are suitable for stockpiling for re-vegetation. This soil data may be available from the local Natural Resources Conservation Service office, or if on public lands, from the land management agency. The map needs to be of such scale the soil types can be accurately determined on the ground.

(a) Each soil type to be disturbed needs to be field analyzed for the following:

The fine matter is dust (overburden) that has blown in off the valley floor. And if left alone will continue to blow in off the valley floor.

Dept of soil material

Non-existent

Volume (for stock pilling)

Non-existent

Texture (field determination)

See attached Exhibit B, by Mr. Peter B. Kaufman, Ph.D.
pH (field determination) **Our Lab tests show the pH levels to ride at the 6.0 level.**

(cross reference with item 106.6)

(b) *Where there are problem soil areas (as determined from the field examination) laboratory analysis need to be about one quart in size, properly labeled, and in plastic bags. Each of the soil horizons on some sites may need to be sampled. Soil sample locations need to be shown on the soils map. Soil analysis for these samples should include; texture, pH, Ec (conductivity), CEC (Catoin Exchange Capacity, SAR, % Organic Matter, Total N, available Phosphorus (as P2O5), Potassium (as K2O), and acid / base potential.*

See attached Exhibit B, by Mr. Peter B. Kaufman, Ph.D.

106.6 - Plan for protecting and redepositing existing soils:

Thickness of soil material to be salvaged and stockpiled:

There is no soil, so no soil will be needed to be salvaged and stockpiled.

Area from which soil material can be salvaged: (show on map)
Volume of soil to be stockpiled:
(cross reference with item 106.5-a)

There is no soil, so no soil will be needed to be salvaged and stockpiled.

Describe how topsoil or subsoil material will be removed, stockpiled, and protected.

There is no"top soil" on the Red Dome claims. There is a top laying

material that we call over burden. This is an alkali sand that has blown in off the dessert. Over the course of a hundred running feet one would notice many different thicknesses of this material . But because of the inconsistent natural of this layer, and the roughness of the lay of the land and the nature of volcanic flows, it is very difficult and at times impossible to scrape up and stock-pile this material. It also mixes with valuable foamed obsidian materials that make it a marketable material in and of itself.

106.7 - Existing vegetative communities to establish re-vegetation success:

Vegetation- *The operator is required to return the land to a useful condition and reestablish at least 70 % of the pre-mining vegetation ground cover.*

A variance is requested on this requirement;

1. The land had no useful purpose prior to mining operations due to vegetation ground cover. Because of the location and conditions it will more than likely not have any usefulness after Red Dome Inc. has completed operations, resulting from vegetation.

2. During the past operations by Red Dome Inc. all mining took place primarily in areas that had been pre - disturbed by others before regulations were in effect and there was no vegetation when Red Dome Inc. started operations. Hence Red Dome Inc. has never substantially disturbed or removed any vegetation ground cover.

3. During the scope of this plan, Red Dome Inc. will continue to operate in areas that were pre-disturbed and will not disturb any vegetaton ground cover.

4. Because of the location, terrain and climate of the area any attempt to re-vegetate the area would be a waste of time and money. As pointed out elsewhere, left to nature some revegetation may occur after reclamation.

Provide the Division with a description of the plant communities growing onsite and the percent vegetation cover for each plant community located on the site. Describe the methodology used to obtain these values. **See Exhibit C pictures of some areas where vegetation is present on some areas of the Red Dome Claims, but not in the vicinity of mining operations.**

The percent ground cover is determined by sampling the vegetation type (s) on the areas to be mined (see attachment I for suggested sampling methods).

(a) ***Vegetation Survey*** *- The following information needs to be completed bases upon the vegetation survey.*

Sampling method used:
Number of plots or transects (10 minimum)

Ground Cover

Vegetation (perennial grass, forb and shrub cover)
Litter
Rock / rock fragments
Bare ground

Re vegetation Requirement
(70 % of above vegetation figure)

Indicate the vegetation communities found at the site.

Cheat grass, is and has had its hold here for quite some time. Another strong fighter is stage bush although it is not found to be growing on the rock that we are mining. Red Dome does not feel it is our responsibility to change the natural vegetative landscape by placing plants into this environment that wasn't here when we were in operation. In the long course of time plants flourish and die off for many reasons and the least of these reasons is mans influence. No man planted any of this vegetation and Red Dome feels it is foolish to reseed this environment. The wind, rodent life and to some extent fowl do a better and more efficient job of it if any can flurish.

List the predominant perennial species of vegetation growing in each vegetation community type.

Two species Cheat (June) grass and stage bush.

(b) ***Photographs*** *- The operator may submit photographs (prints) of the site to show existing vegetation conditions. These photographs should show the general appearance and condition of the area to be affected and may be clearly marked as to the location, orientation and the date they were taken.* **See Exhibit C pictures.**

Enclosed are photos of the highest concentration of plant life around. They were taken on private land nearby and not the mine itself. The reason for the this is mainly because there is no lush lots of vegetive growth nor the "top soil" to support them. This *is* because Red Dome Inc mines a Volcano. [See Exhibit A]

106.9 - Location and size of core and waste stockpiles, tailings and treatment ponds, and discharges:

Describe the location and size of any proposed waste / overburden dumps stockpiles, tailings facilities and water storage or treatment ponds.

Red Dome Inc. Dose not produce any waste product. Stockpiles of finished produce are near the screening plants. There are no wells, streams, water storage or treatment ponds.

Describe how overburden material will be removed and stockpiled.

There is so little over burden on sight that it is almost impossible to harvest it.

Describe how tailings, waste rock, rejected materials, etc. will be disposed of.

Red Dome Inc. does not produce any waste products, every thing can and with time will be sold.

Describe the acreage and capacity of waste dumps, tailings ponds and water storage ponds to be constructed. All impoundments must include the necessary hydrologic calculations to determine if they are adequately sized to handle storm events.

Red Dome Inc is a 500' mountain in the middle of the dessert made up of very porous rock known as foamed obsidian. Any rain or snow is always welcome though rarely received. Red dome has no need for tailings ponds or water storage so it is not necessary to worry about hydroponic calculations

Describe any proposed effluent discharge points (UPS) and show their location on the surface facilities map. Give the proposed discharge rate and expected water quality. Attach chemical analysis of such discharge if available.

The Red Dome Mining Claims contain no moving water in the form of streams rivers or ponds and lakes.

IV. R647-4-107 - Operation Practices:

During operations, the operator shall conform to the practices listed under this section of Minerals Rules unless the Division grants a variance in writing.

Describe measured taken to minimize hazards to public safety during mining operations regarding:

Red Dome has posted no trespassing signs and has created car stopping berms to isolate mined or dangerous area from public access.

The closing or guarding of shafts and tunnels to prevent unauthorized or accidental entry in accordance with MISHA regulations;

Red Dome mining claims have no shafts or tunnels to guard.

The disposal of trash, scrap metal, wood and extraneous debris:

Red Dome hauls its own trash to the local transfer station, scrap medal is sold, scrap wood is valved about the same as gold we burn it to keep warm.

The plugging or capping of drill, core or other exploratory holes.

Red Dome does not dig or drill exploratory holes so there are no plugging or capping to do.

The posting of appropriate warning signs in locations of public access to operations.

Red Dome is very safety conscious appropriate warning signs are placed in locations that the public has access to.

The construction of berms, fences, or barriers above high walls or other

excavations.

Red Dome has constructed earthen berms everywhere, around high walls, roads, around pits, and points where needed to protect the public who may come upon the claims.

If any of these safety measures are not necessary, please explain why.

Red Dome has areas that we feel do not need to be bermed because the area is being mined currently and the public is excluded from the area by other means.

Describe measures taken to avoid or minimize environmental damaged to natural drainage channels which will be affected by the mining operation.

As stated above, there are no streams or drainage areas located on the Red Dome claims.

Describe measures taken to control and minimize sediment and erosion on areas affected by the mining operation. Describe measures being taken to prevent sediment from leaving the disturbed area.

As stated above, there are no streams or drainage areas located on the Red Dome claims.

Identify any potentially deleterious materials that may be stored on site (including fuel, oil, processing chemicals, etc.) and describe how they will be handled and stored.

Red Dome Inc. uses fuel and oils for equipment operations; these are stored in above ground containers, some on stands and under them, and lays a pond liner and berms to contain any spills that may occur.

Describe the measures taken to salvage and store soils to be used in reclamation.

Seeing there are no soils to store this really isn't an issue.

Describe how stock piled topsoil will be protected from erosion and further impact.

No soil to stock pile not much rain to worry about.

Please describe any reclamation to be done during active mining operations prior to final closure. Reference these areas on a map.

Red Dome Inc. will be here for the long haul and has no plans on leaving anytime soon, this means until all the products located within the mining claims are mined and marketed Red Dome will continue to operate. Red Dome will reclaim land as we go along as necessary to keep disturbed areas within the claims to the maximum of Sixty Four acres or less.

V. Rule R647 - 108 - Hole Plugging Requirements:

All drill holes which will not eventually be consumed by mining must by plugged according the methods listed in this section. Describe the location of any aquifers encountered by drilling and the method to used to plug such water containing holes. Describe the method to be used for plugging holes not containing water.

Red Dome Inc. does not do any exploratory drill or drilling of any type.

VI. Rule R647 - 109 - Impact Statement:

109.1 - Surface and ground water systems:

Describe impacts to surface or groundwater which could be caused by the mining operation. Describe how these impacts will be monitored and mitigated. The appropriate groundwater and storm water control permits need to obtained from the Division of Water Quality. Please reference any such permits.

The very nature of the material that Red Dome mines, foamed obsidian, allows water from any rain storm whether it is a little or a lot all at once to be readily absorbed into the subsurface levels without any noticeable saturation or surface run off that could cause erosion and slope ravines.

109.2 - Wildlife habitat and endangered species:

Describe the impacts on wildlife habitat associated with the mine operation.

Red Dome Inc. has issued policies stating firearms are not allowed on premisses and standing orders to leave all fowl, rabbits, mice etc. alone and undisturbed.

Describe any impacts to big game species found in the area.

Red Dome is a day light mining operation which lessens the impact to the wildlife that most generally feeds in the early morning and twilight hours. It is not uncommon to see deer and coyotes, foxes on the mining site. Again the standing orders are do not in any way disturb the local wildlife.

Describe any impacts to riparian areas.

Lizards and snakes abound in spite of what Red Dome does. The standing policy is if a poisonous snake is in the area, work in a different area.

Describe any impacts the mine operation will have on waterfowl (fly-over, temporary resident or permanent resident).

The only waterfowl that Red Dome sees is in the spring and fall as the ducks and geese fly over heading north or south. Some land in the farmers fields, a mile or more to the east of Red Dome but none have ever been sighted on any Red Dome claims

List any threatened or endangered wildlife species found in the area.

Red Dome has not seen any endangered wildlife species in the area.

Describe impacts to threatened or endangered species and their habitats.

No threatened endangered species are found so no impact to threatened or endangered species.

Describe measures to be taken to minimize or mitigate any impacts to wildlife or endangered species.

Red Dome has a standing policy of no firearms on premisses, no discharging of firearms on premisses. No disturbing of any wildlife species. No killing, maiming, chasing, or destroying in any way shape or form; known wildlife, nests, dens, etc. or the young there of.

109.3 - Existing soil and plant resources:

Describe impacts to the existing soil and plant resources tn the area to be affected by mining operations.

None

Describe impacts to riparian or wetland areas which will be affected by mining.

There are no wetlands on or near Red Dome mining claims. The riparian population appears to be unaffected much by the mining operation.

Describe impacts to threatened or endangered plant species.

No known threaten or endangered plant species.

Describe measures to be taken to minimize to mitigate any impacts to soil and plant resources.

There is only sage bush and cheat (June) grass growing in some locations. Areas of mining and planned mining will not disturb those locations.

110.1 - Current land use and post-mining land use:

Current or premining land use (s) other than mining

None.

List future post mine land use proposed

In the current scope of western culture, and the climatic conditions that are present: it would be a good bet to experiment and create sources of renewable wind produced energy.

(Develop the reclamation plan to meet proposed post-mine use)

Restore surface to slopes and levels suitable for such uses. Red Dome proposes to use dozers with rippers, and front end loaders to slope, level and shape mined out areas as mining proceeds during the next Ten years to leave the surface porous so as to appear natural and to allow vegetation to establish itself where conditions are naturally. This reclaiming work will proceed as necessary to keep disturbed areas within the anticipated 64 acres of use.

110.2 - Reclamation of roads, high walls, slopes, leach pads, dumps, etc.

Describe how the following features will be reclaimed: roads, high walls, slopes, impoundments, drainage and natural drainage patterns, pits, ponds, dumps, shafts, adits, drill holes and leach pads. Describe the configuration of these featured after final reclamation. Describe the rinsing and neutralization of leach pads associated with final decommissioning.

When Red Dome leaves an area not much will be left behind. The mined areas will be sloped and leveled with dozer equipment leaving it suitable for uses for which the surface might be put to. There will be no high walls. All material will be processed and shipped to customers. All of our work is above ground, there are no pits, shafts or drill holes. We produce no waste because everything we process is sold. We have no water problems so there are no drainage problems, leach pads, and or ponds. Private access roads will be reclaimed accordingly. All public roads will remain as the law dictates. By previous court ruling several main roads that are on Red Dome claims are considered to be public access roads and will not be reclaimed but left as they have generally existed for public use. See Exhibit 1.

Describe how roads will be reclaimed. Road reclamation may include: regrading

cut and fill sections, ripping the road surface with a dozer, top soil replacement construction of water bars, construction of traffic control berms or ditches and re-seeding.

Red Dome Inc. has created a number of access roads to different areas. After their use is outlived, or any remaining will be ripped up using the ripper on the back of the dozer. There was never any soil here and no water bars. The berms and ditches that remain would fit in nicely with the natural landscape. Re-seeding, there was nothing growing here before.

Describe how high walls will be reclaimed. High wall reclamation may include: drilling and blasting, backfilling, regrading, topsoil replacement, and re-seeding. Describe how slopes will be reclaimed. Slope reclamation may include: regrading to a 3 horizontal : 1 vertical (3H:1V) configuration, topsoil replacement, contour ripping, pitting, and re-seeding.

Red Dome Inc. is mining into the mountain face and is in the process of creating benches as we progress. This mountain on the mining claims is not that big and as we go along the whole thing will with time be leveled. See Exhibit A.

Describe how impoundments, pits and ponds will be reclaimed. Include the final elevations and final disposition of the drainage in and around the impoundment. If the impoundment, or pond is intended to be left as part of the post-mining land use, then an agreement withe the land managing agency/ owner is required. Structured to remain must be left in stable condition.

Red Dome Inc. has no impoundments or ponds so they will not be an issue.

Red Dome does have many pits on the Red Dome Claims although Red Dome did not create them, (they were created by previous owners) these pits are fairly shallow; as an ongoing process of mining these pits are being work down, the high walls are being slopped to a 3h 1v grade and the floor ripped and rough-up.

Include the final size of the impoundment, pit, pond in acre-feet of storage and the capacity of the spillway to safely pass storm events.

N/A

Impoundments, pits, and ponds, which are not approved as part of the post mining land use shall be reclaimed, free draining, and the natural drainage patterns restored.

N/A

Describe how drainage will be reclaimed. Drainage reclamation would include: the reestablishment of a natural drainage pattern which fits in with the upstream and downstream cross-section of existing drainage in the vicinity of the disturbance; the reestablishment of stable channel in the reclaimed reach of channel, using the necessary armoring to prevent excessive erosion and downstream sedimentation.

N/A

Include cross-sections and profiles of reestablished channels to demonstrate compatibility with existing drainage characteristics.

N/A

Describe how waste dumps will be reclaimed. Waste dump reclamation may include regrading to a 3h:1v configuration, topsoil replacement, mulch or bio solids applications, contour ripping or pitting, and re seeding. Characterization of the physical and chemical nature of the waste dump materials should be provided.

Red Dome Inc. does not create waste, everything pulled from the active mining areas is the form of raw material, screened and used in any number of products.

Describe how shaft sand adits will be reclaimed. Reclamation of shafts may include: backfilling, installation of a metal grate, installation of a reinforced concrete cap topsoil replacement and re seeding. Reclamation of adits may include: backfilling, installation of a block wall, installation of a metal grate, topsoil replacement and re seeding.

Red Dome Inc. uses above ground mining operations and so this does not apply.

Describe how drill holes will be reclaimed. Drill hole reclamation must be consistent with the rules for plugging frill holes (R647-4-108). Reclamation of plugged drill holes may include topsoil replacement and re seeding.

Red Dome does not drill, and not doing so, this does not apply.

Describe how tailings areas will be reclaimed. Tailings reclamation may include: de-watering, neutralization, placement of cap materials, placement of subsoil materials, topsoil replacement and re-seeding. Characterization of the physical and chemical makeup of the tailings material should be provided.

Red Dome does not create tailing or any waste so this section does not apply.

Describe how leach pads will be reclaimed. Reclamation of leached materials may include: neutralization or leached materials, rinsing of leached materials, de-watering leached materials, regrading slopes of leached materials to 3h:1v, extending pad loners, placement of capping materials, placement of subsoil materials, mulch or bio solids application, topsoil replacement and re-seeding. Characterization of the physical and chemical makeup of the leached materials should be provided. Post closure monitoring and collection of drain down fluids should also be addressed.

Note: The Minerals Rules require overall high-wall angles of no more the 45 degrees at final reclamation unless a variance is granted. All dump or fill slopes should be left at an angle of 3h :1v or less. Any sloped steeper than 3h: 1v must be reclaimed using state of the art surface stabilization technology. Pit benched exceeding 35 feet in width should be top-soiled, or covered with fines and re-vegetated.

Red Dome does not have any leach pads or leach ponds, and not having such this section will not apply.

Describe the final disposition of any stockpiled materials on site at the time of final reclamation.

At the time of final closure, if that ever does come to pass and if there are any stock piled material that hasn't sold, it will be graded to form small hills and covered with a thin layer of overburden and be allowed to be re-seeded naturally.

110.3 - Surface facilities to be left

Describe any surface facilities which are proposed to remain on site after reclamation (buildings, utilities, roads, drainage structures, impoundments, etc.). Describe their post mine application. Justification for not reclaiming these facilities must be included in the variance request section.

Red Dome has one medal shop building that is permanent which is located on the Red Dome Claims within property owned by the government.

It will be disassembled and the cement foundation and floor tore up and hauled off then fines smoothed over the building site. All other devices used in Red Domes mining operation are portable and will be carted off premises. A larger metal building located near the government owned lands is located private surface owned land and will not necessarily be removed. See Exhibit 1.

110.4 - Treatment, location and disposition of deleterious materials

Describe the nature and extent of any deleterious or acid forming materials located on site. Describe how these materials will be neutralized, removed, or disposed of on site. Describe how buildings foundations, trash and other waste materials will be disposed of.

Red Dome is a portable operation. With the exception of one medal shop building it can all be easily carted off. The cement foundation and floor of that building will be tore up and hauled to the local landfill along with any other trash/ waste materials.

110.5 - REVEGETATION planting program and topsoil redistribution

Describe the revegetation tasks to be performed in detail. For example, will ripping, mulching, fertilizing, seeding and scarifying of these areas be performed and if so , how will this be accomplished? Correlate this information with the Reclamation Treatments Map(s).

(a) <u>Soil Material Replacement</u>

In order to reestablish the required ground cover, one to two feet (depending on underlying material) of suitable soil material usually has to be redistributed on the areas to be re seeded. If the stockpiled soil isn't sufficient for this, soil borrow areas will need to be located.

Describe the volume of soils and approximate depth of soil cover to be used in reclamation. Describe the source of these soils and provide an agronomic analysis of the soils. If soils will not be used describe the alternative material or amendments to applied in lieu of soils. Describe the methods used to transport and place soils.

See variance request above.

The area that Red Dome is mining is a area that has no benefit or use other than mining. There was never any soil in this area other than what was blown in off the dessert.. Nothing was growing on this land except cheat grass, sage bush, rabbit bush, and smoke bush in a few adjacent areas, these

are the plants that can make it here and they blew in off the dessert. Red Dome feels that the sensible approach is to rough up the ground and allow the dessert dust to flow and fill the eddies and let the plant life reclaim what and where it wants.

(b) **Seed Bed Preparation**

Describe how the seed bed will be prepared and equipment to be used. The Division recommends ripping or discing to minimum of 12 inches and leaving the seed bed surface in as roughened condition as possible to enhance water harvesting, erosion control and revegetation success. Compacted surfaces such as roads and pads should be deep ripped a minimum of 18 inches.

Red Dome will rip with a dozer along roads that are no longer used. This along with the nature of the material (it doesn't compact much if any) will create a roughen state with gullies and mounds to make a enhanced water retainer for a successful natural revegetation process.

(c) **Seed Mixture**

Provide a seed mix listing adaptable plant species and the rate of seeding that will be used at the site for reclamation. More than one seed mix may be needed, depending upon the areas to be reclaimed. Keep the proposed post-mining land use in mind when developing seed mixes.

(The Division recommends seeding 12 -15 lbs. / acre of native and introduced adaptable species of grass, forb, and browse seed for drill seeding and 15- 20 lbs./acre for broadcast or hydro seeding. The Division can provide assistance in developing reclamation seed mixes if requested).

See variance request above, and note that this past year Red Dome personnel had noticed a interesting thing happen on the Red Dome claims. One area was left to start work in another; later that season, Red Dome came back to the same site to commence work once again and notice that grasses and sage bush were growing. So if left alone nature will plant itself were it can grow. Doing a better job of re-seeding than what Red Dome Inc. could do.

(d) Seeding Method

Describe the method of planting the seed.

See variance request above.

The Division recommends planting the seed with a rangeland or farm drill. If broadcast seeding, harrow or rake the seed 1/4 to ½ inch into the soil. Fall is the preferred time to seed.

(e) Fertilization

Describe fertilization method, type(s) and application rate (if needed).

No fertilization is needed.

(f) Other Revegetation Procedures

Please describe other reclamation procedures, such as mulching, bio solids application, irrigation, hydroseeding, etc. , that may be planned.

No mulching, bio solids applications, irrigation, hydroseeding or anything else will be used or needed. See variance request above.

VIII. Rule R647 - 4 - 112 VARIANCE

The operator may request a variance from Rules R647 - 4 - 107 (Operation Practices), R647 -4 -108 (Hole Plugging) and R647 - 4 -111 (Reclamation Practices) by submitting the following information:

1.11 *The rule(s) which a variance is requested from; (rule number and content).*

1.12 *A description of the specific variance requested and a description of the area affected by the variance request; show this area on the Reclamation Treatment Map(s).*

1.13 *Justification for the variance;*

1.14 *Alternate methods or measures to be utilized in the variance area.*

Variance requests are considered on a str specific basis. For each variance requested attach a narrative which addresses the four items listed above.

See variance request above and reasons given.

IX. Rule R647- 4 - 113 - SURETY

A Reclamation surety must be provided to the Division prior to final approval of this application. In calculating this amount, include the following tasks:

1- Clean up and removal of structures.
2- Back filling, grading and contouring.
3 - Soil material redistribution and stabilization.
4 - Revegetation (preparation, seeding, mulching)
5 - Safety gates berms barriers signs etc.
6- Demolition removal or burial of facilities/ structures regrading / ripping of facilities areas.
7- Regrading, ripping of waste dump tops and slopes.
8- Regrading/ ripping stock piles, pads and other compacted areas.
9- Ripping pit floors and access roads.
10- Drainage reconstruction.
11- Mulching, fertilizing and seeding the affected areas.
12- General site clean up and removal of trash and debris.
13- Removal/ disposal of hazardous materials.
14- Equipment mobilization.
15- Supervision during reclamation.

To assist the Division in determining a reasonable surety amount, please attach a reclamation cost estimate which addresses each of the above steps. The areas and treatments included in the reclamation treatments map should correspond with items included in the reclamation cost estimate. The reclamation costs used by the Division must be third party costs.

Exhibit D

Red Dome is a constant process of improvement, the costs that are perceived to be accurate today will be different tomorrow. In this year alone a

massive clean-up project has occurred and is on going. At a great cost to Red Dome. Red Dome has no reason to leave any time soon and is in this for the long haul we've been here for many years and figure on being here many more than that. But in the sprite of compromise we at Red Dome are willing to work with the government agencies in developing a program by which improvement is made to meet the end resolve; that being, a safe clean, useable piece of land that future generations would be glad to inherit.

A starting point could be that any and all pits, holes and trash that Red Dome inherited in its purchase of these mining claims will be cleaned up as we prescribed above. Also realize that any growth that Red Dome has, has far reaching side affects the least of which is taxes.

It has been brought to Red Domes attention that there are areas that are "pre-law" areas. These areas if Red Dome was to work them at any date in the future or to "reclaim" them need to be in the mining plan. It is also been brought to Red Domes attention that there are areas that were mined after the year of this "law". Those areas Red Dome is responsible for as an "inherited" problem.

Another point that was brought to Red Domes attention is that; if Red Dome is to expand into the eastern face of the mountain, which is very probable, then Red Dome needs to amend this mine plan to cover it, or at a later date redo the whole mining report to show the expansion of our growth. This would be at a added cost and a whole lot more paper work. With the added cost it would be wiser to show the future growth, now.

Red Dome Inc.'s , products consumed by customers we sell to are constantly changing. What Red Dome is selling today and to whom we are selling and for what reason they are buying, is ever changing. Red Dome must be creative to stay in this business. Red Dome's operations are not like some coal mining operation where its product has one propose and a couple major customers that they sell to. Red Dome customers and products are forever changing. Red Dome doesn't know where the future product lines will need to be nor who will be our customers. All that Red Dome doses know for certain is that we will be here, that our livelihood is in our ability to get creative, to be able to tool and retool quickly to meet the ever demanding needs of our customers.

Red Dome also understands more than anyone else the responsibility of stewardship to this land. No man would ever think of working his horse hard and forget to feed and care for it. Red Dome is working hard to improve our environment to work along side our neighbors. This process is a forever on going; one in which Red Dome will make mistakes but once learned, never repeated. Knowledge, wisdom, experiences: are what Red Dome craves, seeks, and finds.

X. Permit Fee (Mined Land Reclamation Act 40-8-7 (I))

The Utah Mined Land Reclamation Act of 1975 [40-8-7(I)] provided the authority for the assessment of permitting fees. Commencing with the 1998 fiscal year (July 1 - July 30), annual permit fees are assessed to new and existing notices of intention and annually thereafter until the project disturbances are successfully reclaimed by the operator and released by the Division.

Large mining permits require an initial submission fee and annual fee of $ 350.00 for surface disturbance of 50 or less acres, or a $ 750.00 fee for surface disturbance greater than 50 acres (see page five Section III , Rule R647 - 4 - 106.3 fee estimated disturbance calculation). The appropriate fee Must accompany this application or it cannot be processed by the Division.

Please Note: If you are expanding from a small mining operation to a large mining operation, the appropriate large mine permit fee, less the annual $ 100.00 small mine fee (if already paid) must accompany this application.

Red Dome Inc. asserts that the presently posted bond is sufficient security covering this Ten year plan limited in scope to 64 acres being disturbed at any one given time, with ongoing reclamation as planned herein to keep the disturbed areas within the acreage.

XI. Signature Requirement

I hereby certify that the foregoing is true and correct

Signature of Operator / Applicant

Name Red Dome Inc.

_____

Lee T. Miller
Title / Position Manager

Date:

Please Note:
Section 40-8-13 (2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the location size, or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: *( ) Yes*

(x) No

Attachment I

Vegetation Cover Sampling

Vegetation cover sampling determines the amount of ground that is covered by live vegetation. It is divided into four categories which equal 100 percent. They are:

Vegetation - This is the live perennial vegetation. Care should be taken to avoid sampling in disturbed areas that have a large percentage of annual or weedy vegetation, such as cheatgrass and Russian thistle.

Litter- This is the dead vegetation on the ground, such as leaf and stem litter.

Rock/ rock fragments- This is the rock and rock fragments on the soil surface.

Bare ground - This is the bare soil which is exposed to wind and water erosion.

Cover Sampling- the following methods are acceptable;

Ocular Estimation

This method visually estimates the percentage of ground covered in a plot by the four components. Plot size is usually a meter or yard square or circular plot 36 inches in diameter. Ten to twenty plots should be randomly sampled in each major vegetation type.

Line Intercept

Percent ground cover is obtained by stretching a tape measure (usually 100') over the ground and then recording which of the four components is under each foot mark. At least ten of these transects should be randomly laid out and measured in each major vegetation type.

Soil Survey and Sampling Methods

If a Natural Resource Conservation Service or land management agency soil survey is not available, the operator shall delineate all soil types that will be disturbed by mining on a map. Each soil type shall be sampled for its characteristics and inherent

properties. Representative sampling locations should have similar geologic parent material, slopes, vegetation communities and aspects. The sampling locations should be representative of the soil type and identified on the map. Sampling shall be at a minimum of one for each soil type disturbed.

The soil map needs to be sufficient scale so that each soil type can be accurately located on the ground.

None - See variance request

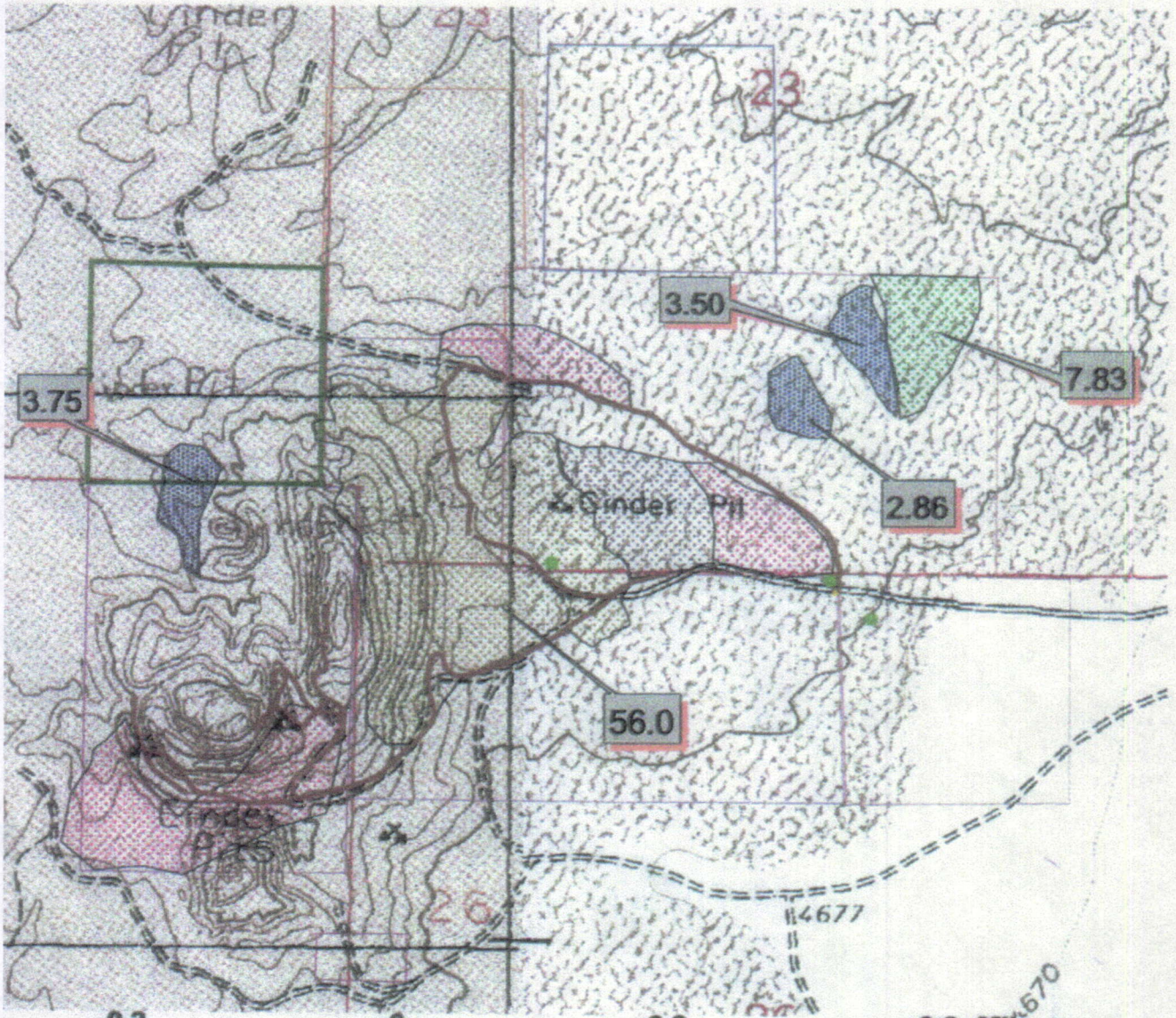
reclamation

Red Dome Mining Claims Cost

Dozer Work					**Earthwork**
	Acres			Cost/Acre	
Light	64	Recontouring Cost		$ 330.00	$21,120.00
Moderate	0	Recontouring Cost		990.00	$0.00
Heavy	0	Recontouring Cost		1485.00	$0.00
Excavator Work					
Roads with the side Slope,	Linear Feet			Cost/Linear Foot	
<30%	0	Recontouring Cost		$ 1.50	$0.00
>30%	0	Recontouring Cost		2.40	$0.00
Areas of non-road disturbance where the use of dozer wouldn't be adequate.					
	Acres			Cost /Acre	
<30%	0	Recontouring Cost		$4,665.00	$0.00
>30%	0	Recontouring Cost		7,465.00	$0.00
Revegetation					**Revegetation**
	Acres			Cost/Acre	
Non-Road disturbances with machine spreader	0	Revegetation Cost		$ 600.00	$0.00
Non-Road disturbances with manual spreading	64	Revegetation Cost		150.00	$9,600.00
	Linear Feet			Cost/Linear Foot	
Road disturbances with machine spreader	0	Revegetation Cost		$ 0.20	$0.00
Road disturbances with manual spreader	0	Revegetation Cost		$ 0.05	$0.00
Mobilization					**Mobilization**
	No. Pieces of equipment			Cost/Piece	
		Mobilization Cost		$ 300.00	$300.00
Total Labor Cost	5558			**Total Operating and Maintenance (O&M) Co**	**$31,020.00**
		Contractor's Profit		10% O&M Cost	$3,102.00
				Estimated Contract	$34,122.00
		Contingency		10% O&M Cost	$3,102.00
				Total O&M and Contingency	**$37,224.00**
Administrative Fees		Contract Administratio		16% O&M Cost	$4,963.20
		Indirect Costs		21% Administrative Cost	$1,042.27
		Engineering/Design		2% O&M Cost	$620.40
		*Insurance		1.5% Labor Cost	$0.00
		*Bond Maintenance		3% Rec. Cost	$0.00
* Only Administered if Estimated Contract Costs over $100,000.				**Total Administration Co**	**$6,625.87**

Exhibit D

Red Dome



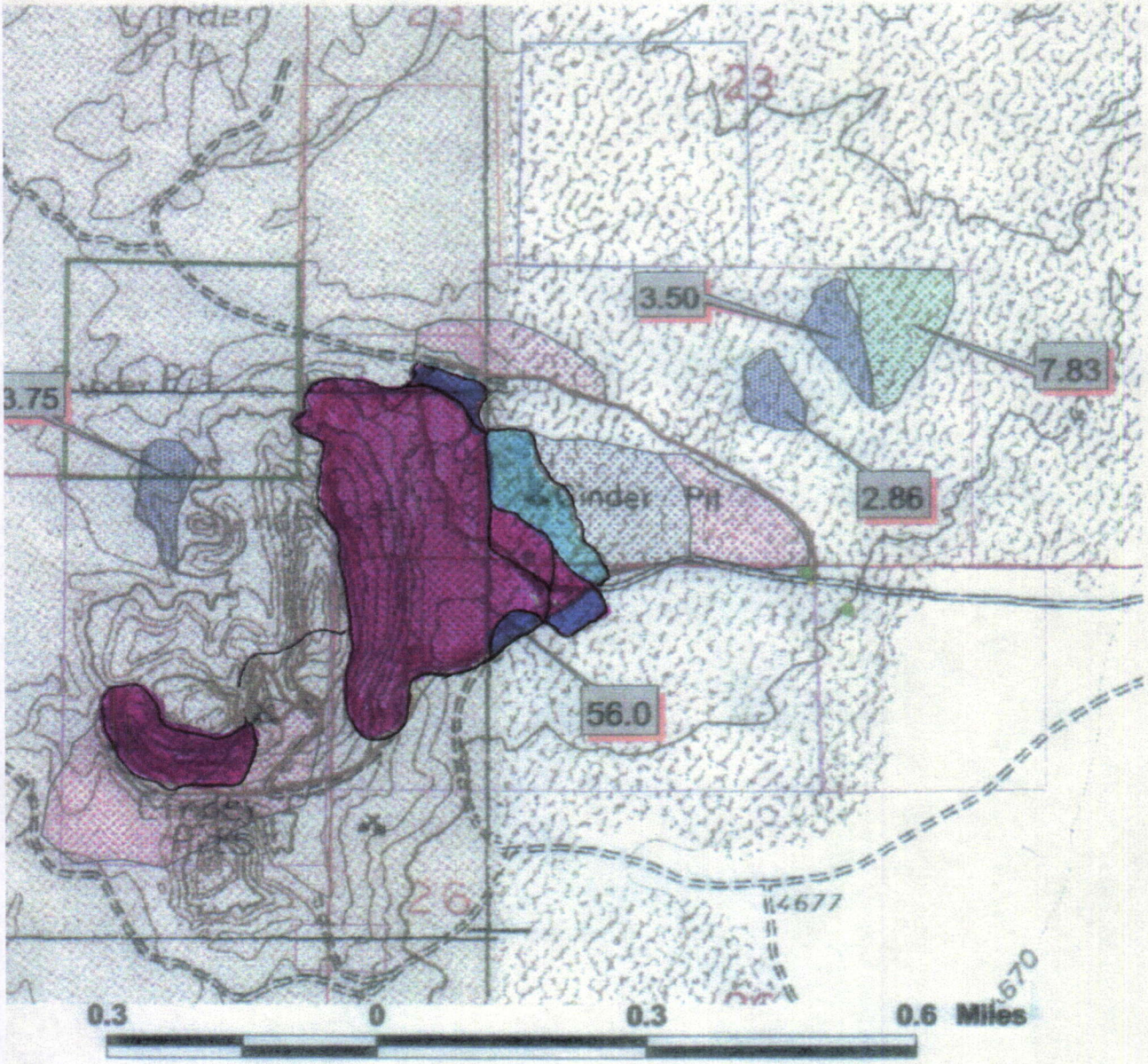
0.3 0 0.3 0.6 Miles

- Buildings
- Roads
- 11-24-03
- 1993
- 1983
- 1976
- 1956
- New discovery
- Red dome #2
- Reddome #3
- Red dome #4
- Red dome #5
- Red dome #6
- Red dome #7

N
W E
S

Exhibit 2-d

Red Dome



- Buildings
- Roads
- 11-24-83
- 1993
- 1983
- 1976
- 1956
- New discovery
- Red dome #2
- Reddome #3
- Red dome #4
- Red dome #5
- Red dome #6
- Red dome #7

N
W E
S

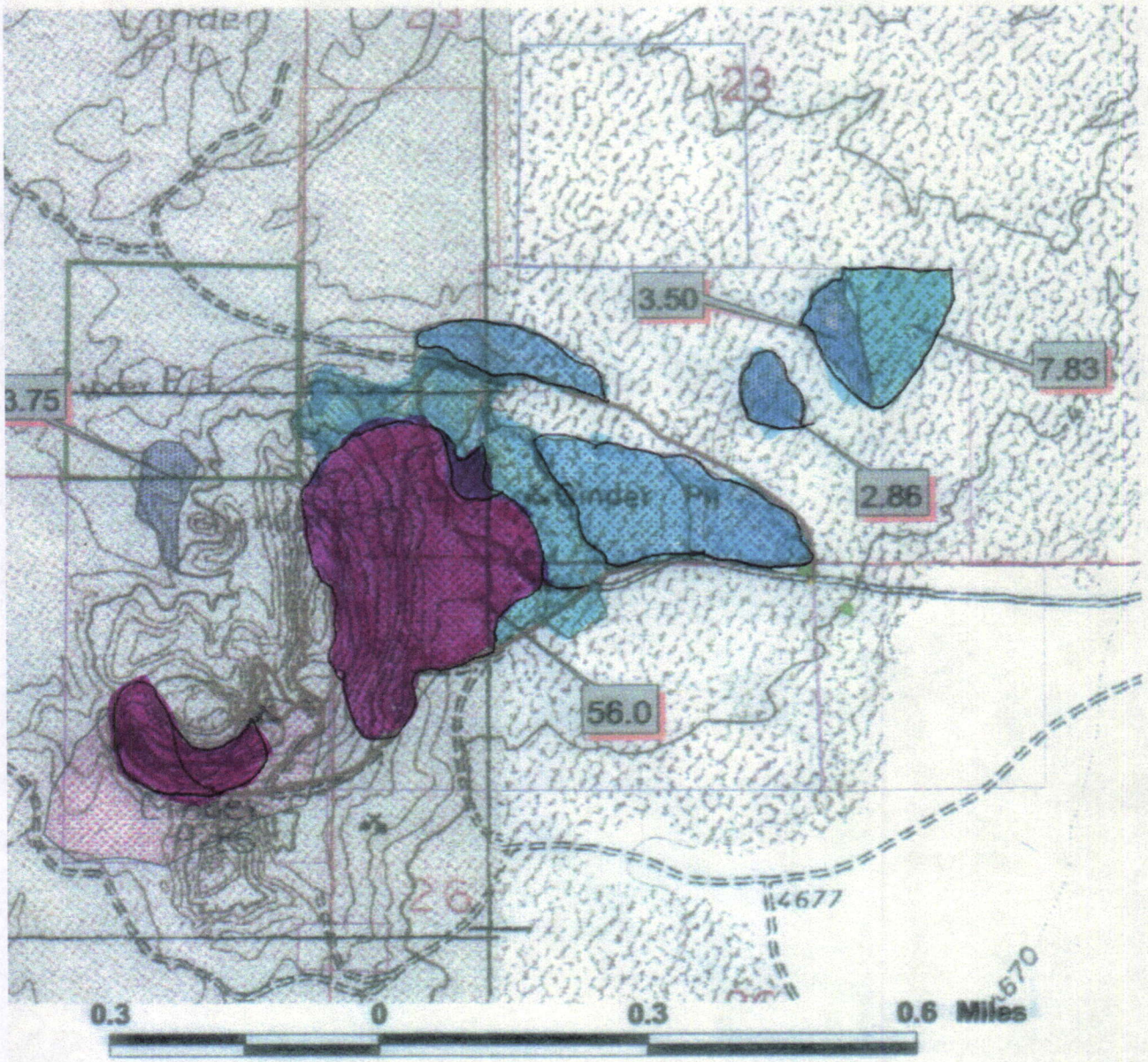
MINING OPERATION

RECLAIMED LAND

CLEANING UP TO BE RECLAIMED

Exhibit 2-b

Red Dome



- Buildings
- Roads
- 11-24-03
- 1993
- 1983
- 1976
- 1956
- New discovery
- Red dome #2
- Reddome #3
- Red dome #4
- Red dome #5
- Red dome #6
- Red dome #7

N
W E
S

MINING OPERATION

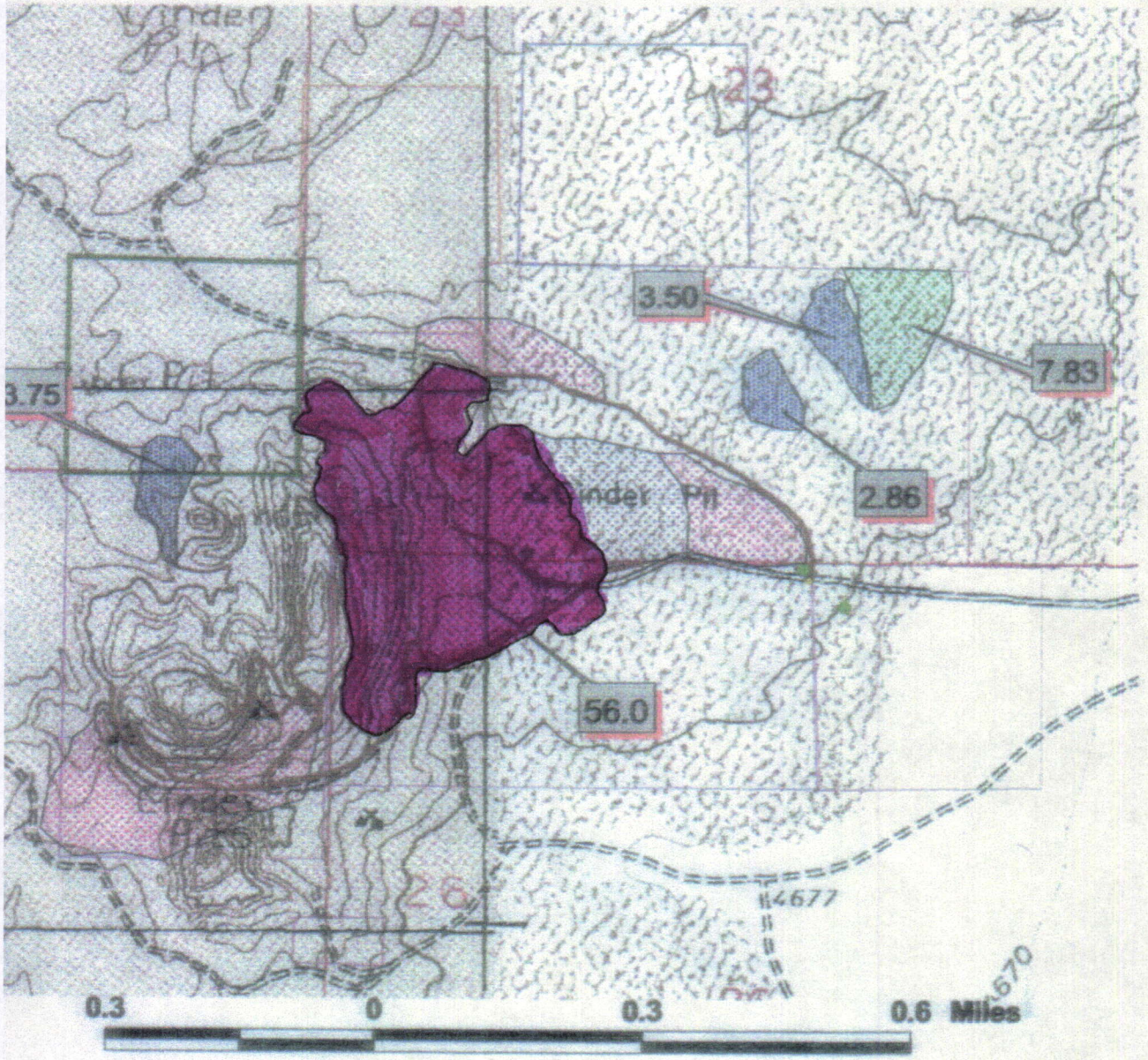
RECLAIMED LAND

CLEANING UP TO BE RECLAIMED

TEN YEARS FROM NOW

EXHIBIT 2-S

Red Dome



Buildings
Roads
11-24-83
1993
1983
1976
1956
New discovery
Red dome #2
Reddome #3
Red dome #4
Red dome #5
Red dome #6
Red dome #7

N
W
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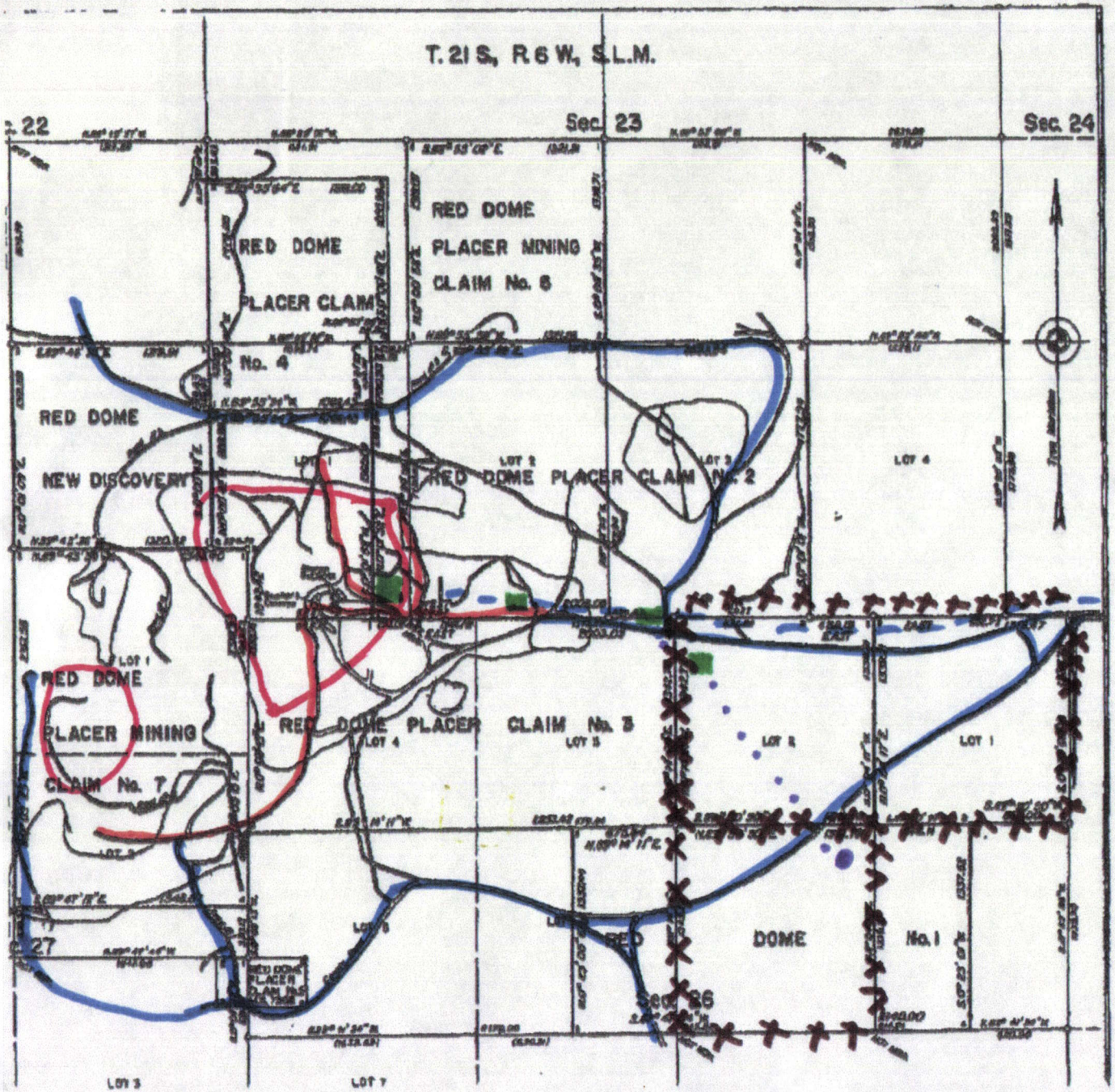
CURRENT RED DOME INC.
MINING AREA
PRESENT DAY

Exhibit 2-9



MINERAL SURVEY No. 7369 UTAH

CLAIM OF

RED DOME INC.

KNOWN AS THE

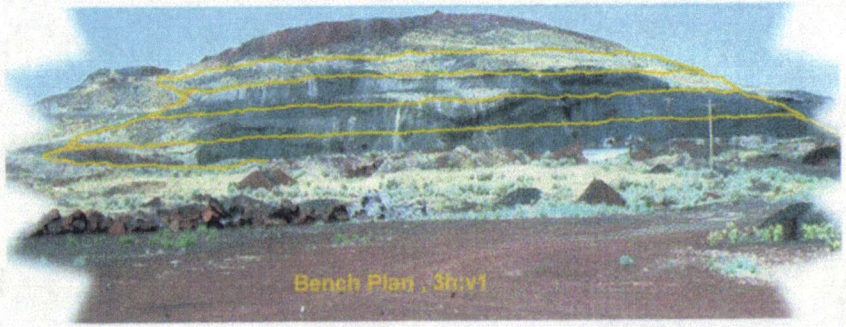
RED DOME No. 1, RED DOME PLACER CLAIM No. 2, RED DOME PLACER CLAIM No. 3, RED DOME PLACER CLAIM No. 4, RED DOME PLACER MINING CLAIM No. 6, RED DOME PLACER MINING CLAIM No. 7, AND RED DOME NEW DISCOVERY, PLACER MINING CLAIMS

SITUATE IN

Secs. 22, 23, 26, and 27, T. 21 S., R. 6 W., S.L.M.
MILLARD COUNTY
Lat. 38° 57' 58" N., Long. 112° 29' 03" W.
at Northeast Corner of Section 26

Electric Trans. Line
Public Roads
Buildings + Crusher
Proposed access
active mine
present – 10 yrs.
Private Surface
+ mining claim owned
Water Well
and Line

Exhibit 1



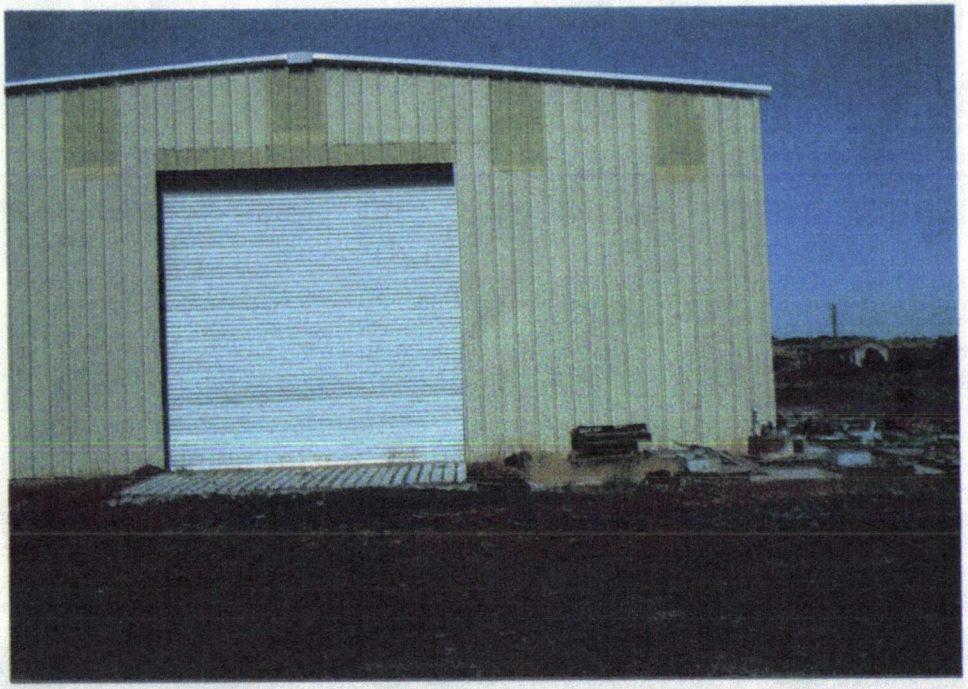


Exhibit A

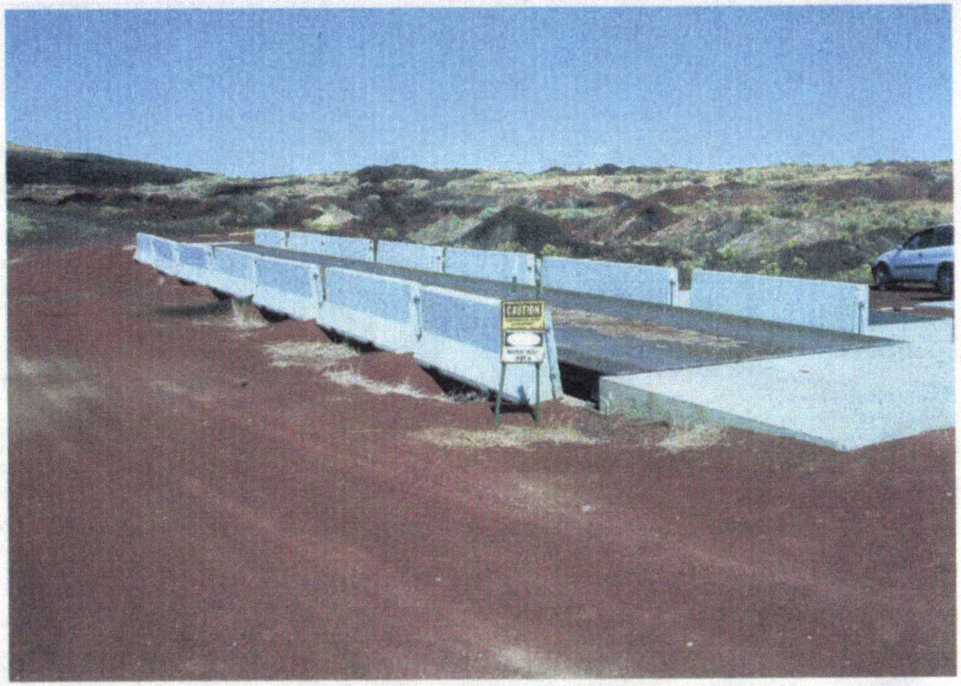


Exhibit C-1

Exhibit C -

The University of Michigan

Department of Biology

830 N. University • Ann Arbor, Michigan 48109-1048
313-764-1440 • FAX 313-647-0884
http://www.biology.lsa.umich.edu/

May 22, 1997

Mr. Gordon D. Griffin
Multiple Discipline Consultant
7 Ramshorn Court
Savannah, Georgia 31411

Dear Gordon:

I have in hand the results of electron microprobe analysis of your red and black obsidian samples, performed by Mr. Carl Henderson, Engineering Research Associate II, Department of Geology 2509 C.C. Little Building, University of Michigan, Ann Arbor, Michigan 48109-1063.

What you have in these obsidian samples are very nice peaks for carbon, oxygen, iron (3 peaks), sodium, magnesium, aluminum, silicon, phosphorous (minor), sulfur (minor), potassium, calcium (2 peaks), titanium, and manganese. The basic difference between the two samples is that the black obsidian contains almost twice as much iron (Fe). What I find of interest is that there are some respectable amounts of elements essential for plant growth present in these samples; namely, calcium potassium, iron, magnesium, phosphorus, sulfur, and manganese.

I hope that you find these data to be useful. I wish you all the best in finding new and successful uses for your volcanic obsidian from Utah. So far, you are on the right track with your applications.

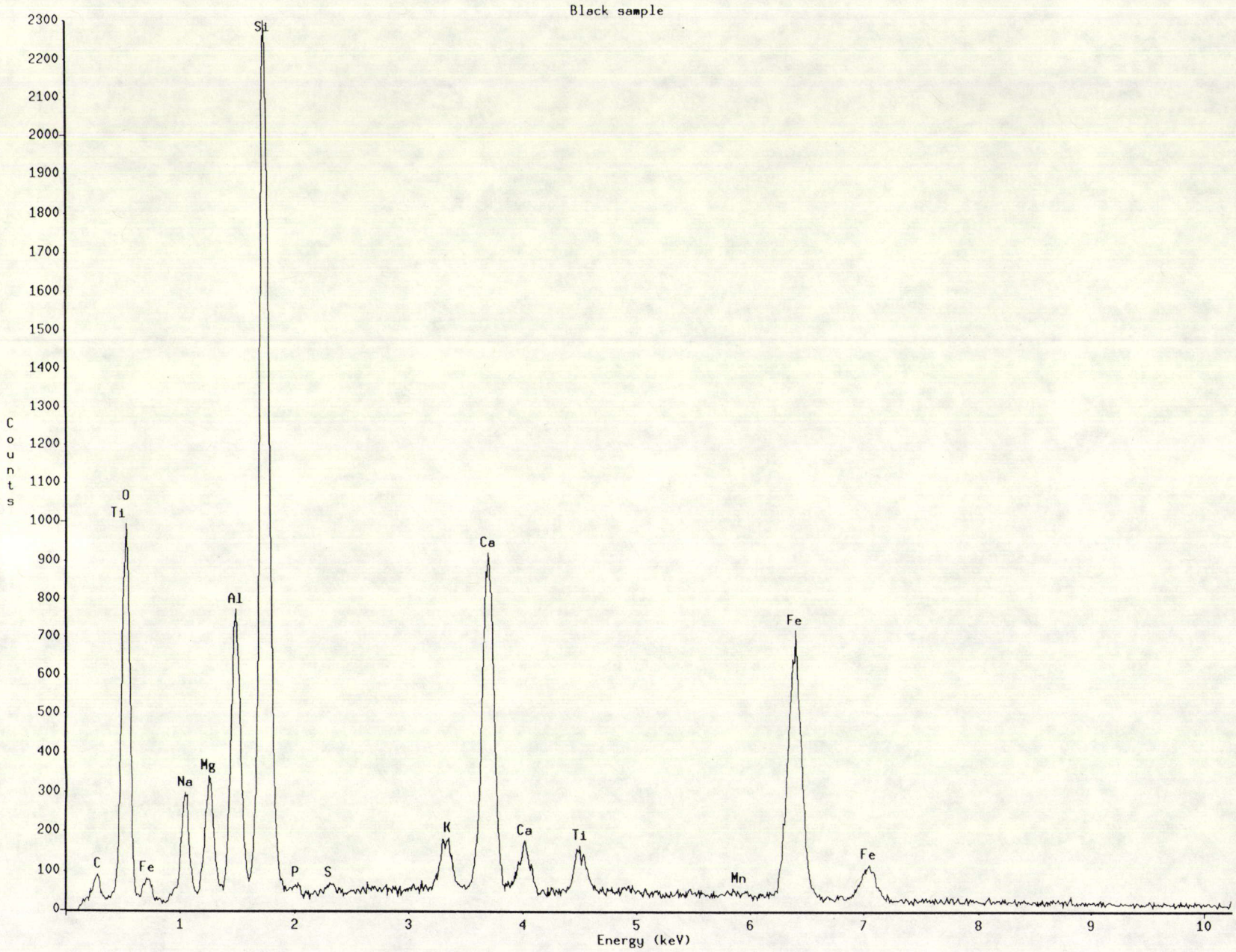
With kind regards.

Sincerely,

Peter

Peter B. Kaufman, Ph.D.
Professor of Biology and Bioengineering

EXHIBIT B


Black sample
Counts
Energy (keV)
C
O
Ti
Fe
Na
Mg
Al
Si
P
S
K
Ca
Ca
Ti
Mn
Fe
Fe

Thu May 22 14:31:48 1997

Black sample

Gaussian Deconvolution Method Automatic Background Fit
Chi-sqd = 1.11 Livetime = 100.0 Sec.
Standardless Analysis

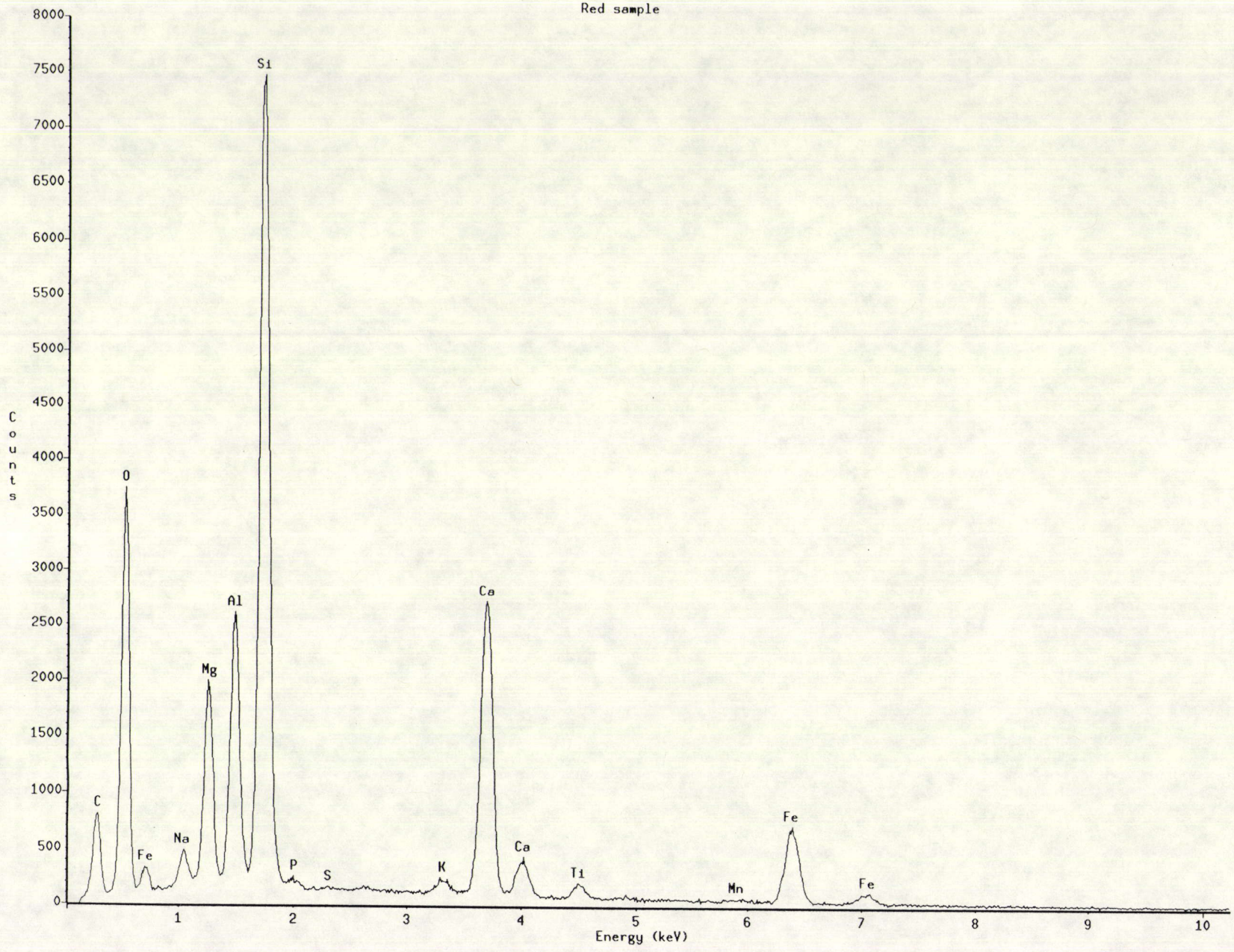
Element	Relative k-ratio	Error (1-Sigma)	Net Counts	Error (1-Sigma)
C -K	---	---	391	+/- 28
O -K	---	---	7724	+/- 92
Fe-L	---	---	683	+/- 41
Na-K	0.02450	+/- 0.00061	2094	+/- 52
Mg-K	0.02592	+/- 0.00061	2404	+/- 57
Al-K	0.06437	+/- 0.00090	6449	+/- 90
Si-K	0.22682	+/- 0.00173	21841	+/- 167
K -K	0.02676	+/- 0.00087	1715	+/- 56
Ca-K	0.20497	+/- 0.00211	11829	+/- 122
Ti-K	0.03623	+/- 0.00120	1633	+/- 54
Fe-K	0.38034	+/- 0.00409	10499	+/- 113
Mn-K	0.00705	+/- 0.00114	211	+/- 34
Mn-L	---	---	0	+/- 0
P -K	0.00130	+/- 0.00031	127	+/- 30
S -K	0.00174	+/- 0.00037	149	+/- 32

Adjustment Factors	K	L	M
Z-Balance:	0.00000	0.00000	0.00000
Shell:	1.00000	1.00000	1.00000

PROZA Correction Acc.Volt.= 20 kV Take-off Angle=35.00 deg
Number of Iterations = 5

Element	k-ratio (calc.)	ZAF	Atom %	Element Wt %	Wt % Err. (1-Sigma)	Compound Formula	Compound Wt %	No. of Cations
Na-K	0.0103	3.641	3.89	3.75	+/- 0.09	Na2O	5.06	1.576
Mg-K	0.0109	2.542	2.72	2.77	+/- 0.07	MgO	4.60	1.101
Al-K	0.0271	2.013	4.81	5.45	+/- 0.08	Al2O3	10.30	1.950
Si-K	0.0955	1.678	13.58	16.02	+/- 0.12	SiO2	34.27	5.505
K -K	0.0113	1.164	0.80	1.31	+/- 0.04	K2O	1.58	0.324
Ca-K	0.0863	1.116	5.72	9.63	+/- 0.10	CaO	13.47	2.319
Ti-K	0.0152	1.201	0.91	1.83	+/- 0.06	TiO2	3.06	0.369
Fe-K	0.1601	1.179	8.05	18.88	+/- 0.20	Fe2O3	26.99	3.262
Mn-K	0.0030	1.208	0.16	0.36	+/- 0.06	MnO	0.46	0.063
P -K	0.0005	1.746	0.07	0.10	+/- 0.02	P	0.10	0.030
S -K	0.0007	1.450	0.08	0.11	+/- 0.02	S	0.11	0.032
O -K	---	4.058	59.21	39.79 S	---	---	---	---
Total			100.00	100.00			100.00	16.531

The number of cation results are based upon 24 Oxygen atoms
Table Symbols: S -- Wt.% calculated by Stoichiometry


Red sample
Counts
Energy (keV)
C
O
Fe
Na
Mg
Al
Si
P
S
K
Ca
Ca
Ti
Mn
Fe
Fe

Thu May 22 14:38:04 1997

Red sample

Gaussian Deconvolution Method Automatic Background Fit
Chi-sqd = 10.84 Livetime = 100.0 Sec.
Standardless Analysis

Element	Relative k-ratio	Error (1-Sigma)	Net Counts	Error (1-Sigma)
C -K	---	---	6484 +/-	84
O -K	---	---	26307 +/-	165
Fe-L	---	---	1650 +/-	60
Na-K	0.00727 +/-	0.00036	1392 +/-	69
Mg-K	0.06519 +/-	0.00070	13526 +/-	145
Al-K	0.09081 +/-	0.00078	20349 +/-	175
Si-K	0.33727 +/-	0.00169	72646 +/-	365
K -K	0.01249 +/-	0.00045	1791 +/-	65
Ca-K	0.27811 +/-	0.00172	35903 +/-	222
Ti-K	0.01817 +/-	0.00061	1832 +/-	62
Fe-K	0.17948 +/-	0.00189	11083 +/-	117
Mn-K	0.00476 +/-	0.00062	318 +/-	41
Mn-L	---	---	242 +/-	43
P -K	0.00451 +/-	0.00026	976 +/-	56
S -K	0.00195 +/-	0.00026	373 +/-	50

Adjustment Factors	K	L	M
Z-Balance:	0.00000	0.00000	0.00000
Shell:	1.00000	1.00000	1.00000

PROZA Correction Acc.Volt.= 20 kV Take-off Angle=35.00 deg
Number of Iterations = 5

Element	k-ratio (calc.)	ZAF	Atom %	Element Wt %	Wt % Err. (1-Sigma)	Compound Formula	Compound Wt %	No. of Cations
Na-K	0.0028	3.145	0.87	0.89	+/- 0.04	Na2O	1.20	0.345
Mg-K	0.0254	2.152	5.03	5.46	+/- 0.06	MgO	9.05	2.001
Al-K	0.0353	1.849	5.43	6.53	+/- 0.06	Al2O3	12.34	2.157
Si-K	0.1312	1.608	16.84	21.11	+/- 0.11	SiO2	45.15	6.696
K -K	0.0049	1.192	0.33	0.58	+/- 0.02	K2O	0.70	0.132
Ca-K	0.1082	1.144	6.93	12.38	+/- 0.08	CaO	17.33	2.753
Ti-K	0.0071	1.250	0.41	0.88	+/- 0.03	TiO2	1.47	0.164
Fe-K	0.0698	1.205	3.38	8.41	+/- 0.09	Fe2O3	12.03	1.343
Mn-K	0.0019	1.235	0.09	0.23	+/- 0.03	MnO	0.30	0.037
P -K	0.0018	1.801	0.23	0.32	+/- 0.02	P	0.32	0.091
S -K	0.0008	1.495	0.08	0.11	+/- 0.02	S	0.11	0.031
O -K	---	4.608	60.38	43.09 S	---	---	---	---
Total			100.00	100.00			100.00	15.751

The number of cation results are based upon 24 Oxygen atoms
Table Symbols: S -- Wt.% calculated by Stoichiometry